

**Notice of Allowability**

Application No.

09/689,228

Examiner

Tilahun B. Gesesse

Applicant(s)

BARRATT ET AL.

Art Unit

2618

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/25/07.
2. ☒ The allowed claim(s) is/are 40-43, 45-65, 68-83 and 85-97.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### **Status of claim**

1. This is in response to applicant amendment filed June 25, 2007 , in which claims 1-39, 44, 66-67 and 84, has been deleted and claims 40-43, 45-65,68-83,85-97 are pending.

After further search and examination of the present applicant and in view of applicant amendment , claims 40-43,45-65,68-83,85-97 are found to be in condition for allowance.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In claim 50 , line 1, after claim "44" has been deleted and instead —40— has been inserted

In claim 53, line 1, after claim "44" has been deleted instead —40—has been inserted.

### ***Allowable Subject Matter***

Claims 40-43, 45-65,68-83,85-97 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance: the prior art Ottersten discloses a method comprising: iteratively processing a signal through a

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plurality of signal processing procedures (column 15, line 37-column 16, line 23 and figure 5) to generate a plurality of processed signals (column 16, lines 14-30 and figure 5) and sequentially transmitting the plurality of processed signals through a coupled antenna array (column 16, lines 14-30, column 24 lines 29-41 and figures 1 and 5), generating a desired radiation level at a number of locations within a desired sector (column 16 lines 38-48 and figures 1 and 11). Ottersten discloses iteratively processing signal is transmitted through plurality of antennas (column 13, line 55-column 14 line 7 and figure 8). Ottersten further teaches multiple channels receive being processed by processor (44 of fig.8) and reprocessed by weight processor (43 of fig.8) and then transmit through antenna array (14 of figs.1 and 5, col. 25, lines 60-col.26, line 10).

On the other hand, the present applicant specifically teaches developing a plurality of signal processing procedures by selecting a weight vector from a sequence of different weight vectors, wherein elements of the weight vectors selectively modify one or more characteristics of transmission of a signal from each antenna of an antenna array. This limitation, in conjunction with all other limitation, has not been disclosed, taught or made obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 571-272-7879. The examiner can normally be reached on flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899.

The Central FAX Number is 571-273-8300. For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number .

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TG

June 25, 2007

  
TILAHUN GESESSE  
PRIMARY EXAMINER